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CLAIMS

- 1. Use of (i) one or more bacteriophages and (ii) one or more antibiotics in the manufacture of a combined product for simultaneous, separate or sequential administration of (i) and (ii) to treat a bacterial infection characterised by biofilm formation.
- 2. A use as claimed in claim 1 wherein more than one bacteriophage is employed in the manufacture of a single combined bacteriophage preparation.

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- 3. A use as claimed in claim 2 wherein said combined bacteriophage preparation comprises a plurality of bacteriophages capable of infecting the same bacterial species, each member of said plurality of bacteriophages having a different strain specificity.
- 4. A use as claimed in any one of claims 1 to 3 wherein one or more antibiotics are administered after said one or more bacteriophages.
- 5. A use as claimed in any one of claims 1 to 4 wherein said bacterial infection comprises or consists of *Pseudomonas aeruginosa*.
 - 6. A use as claimed in claim 5 wherein said infection is an infection selected from infection of a skin burn or other skin wound, a lung infection, an ocular infection or an ear infection.
- 7. A use as claimed in claim 6 wherein said infection is a canine ear infection.
 - 8. A use as claimed in any one of claims 1 to 5 wherein said administration is for prophylactic treatment.
 - 9. A use as claimed in claim 8 wherein said combined product is a contact lens solution or additive.
- 10. A use as claimed in any one of claims 5 to 9 wherein one or more bacteriophages are employed selected from NCIMB 41174, NCIMB 41175, NCIMB 41176, NCIMB 41177, NCIMB 41178, NCIMB 41179, NCIMB 41180 and NCIMB 41181 (deposited at the National Collection of Industrial and Marine Bacteria,

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Aberdeen, United Kingdom) and mutants thereof which retain the ability to target *P. aeruginosa*.

11. A use as claimed in claim 10 wherein a panel of bacteriophages is employed, each member of said panel having a different strain specificity and being selected from NCIMB 41174, NCIMB 41175, NCIMB 41176, NCIMB 41177, NCIMB 41178 and NCIMB 41179, NCIMB 41180 and NCIMB 41181 and mutants thereof which retain the ability to target *P. aeruginosa*.

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- 12. A use as claimed in claim 11 wherein a panel of bacteriophages is employed consisting of NCIMB 41174, NCIMB 41175, NCIMB 41176, NCIMB 41177, NCIMB 41178, NCIMB 41179 or a panel which differs from said panel by substitution of any of said bacteriophages by a mutant thereof which exhibits desired target strain specificity.
- 13. A use as claimed in claim 12 wherein said panel of bacteriophages is employed in the manufacture of a single combined bacteriophage preparation for use in treating a canine ear infection
- 14. A use as claimed in any one of claims 1 to 13 which further comprises use of an alginase for simultaneous, separate or sequential administration to said one or more bacteriophages.
- 15. A bacteriophage selected from the bacteriophage strains NCIMB 41174, NCIMB 41175, NCIMB 41176, NCIMB 41177, NCIMB 41178, NCIMB 41179, NCIMB 41180 and NCIMB 41181 deposited at the National Collection of Industrial and Marine Bacteria, Aberdeen, United Kingdom, or mutants thereof which retain the ability to target *P. aeruginosa*.
- 16. A pharmaceutical composition comprising one or more bacteriophages as claimed in claim 15 together with a pharmaceutical carrier or diluent
 - 17. A combined product for simultaneous, separate or sequential administration of a panel of bacteriophages to treat a bacterial infection comprising or consisting of *Pseudomonas aeruginosa*, each member of said panel having a

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different strain specificity and wherein said panel consists of two or more bacteriophages selected from NCIMB 41174, NCIMB 41175, NCIMB 41176, NCIMB 41177, NCIMB 41178, NCIMB 41179, NCIMB 41180, NCIMB 41181 and mutants thereof which retain the ability to target *P. aeruginosa*.

- 18. A combined product as claimed in claim 17 wherein said panel of bacteriophages consists of the bacteriophages NCIMB 41174, NCIMB 41175, NCIMB 41176, NCIMB 41177, NCIMB 41178, NCIMB 41179 or a panel which differs from said panel by substitution of any of said bacteriophages with a mutant thereof which exhibits desired target strain specificity
- 19. A combined product as claimed in claim 17 or claim 18 which is a single pharmaceutical composition comprising said panel of bacteriophages together with a pharmaceutical carrier or diluent.
 - 20. A composition or combined product as claimed in any one of claims 16 to 19 which further comprises one or more antibiotics for simultaneous, separate or sequential administration to said one or more bacteriophages.
 - 21. A composition or combined product as claimed in any one of claims 16 to 20 which further comprises an alginase for simultaneous, separate or sequential administration to said one or more bacteriophages.
- 22. Use of a composition or combined product as claimed in any one of claims 16 to 21 in the manufacture of a medicament to treat a bacterial infection comprising or consisting of *P. aeruginosa*.
 - 23. A use as claimed in claim 22 wherein said infection is an infection selected from infection of a skin burn or other skin wound, a lung infection, an ocular infection or ear infection.
- 25 24. A use as claimed in claim 23 wherein said infection is a canine ear infection.
 - 25. A use as claimed in claim 22 wherein said medicament is used for prophylactic treatment.

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26. A method of therapeutic or prophylactic treatment of a bacterial infection characterised by biofilm formation which comprises administering to a human or non-human animal in need thereof one or more bacteriophages capable of targeting bacteria of said infection and simultaneously, separately or sequentially thereto one or more antibiotics.

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- 27. A method as claimed in claim 26 wherein one or more bacteriophages are employed as defined in any one of claims 10 to 12.
- 28. A method of therapeutic or prophylactic treatment of a bacterial infection comprising or consisting of *P. aeruginosa* which comprises administering to a human or non-human animal in need thereof one or more bacteriophages as defined in any one of claims 10 to 12.
- 29. A non-therapeutic method of removing, reducing or preventing bacterial contamination characterised by biofilm formation, said method comprising applying to the site or prospective site of said contamination one or more bacteriophages capable of targeting bacteria of said contamination and simultaneously, separately or sequentially thereto one or more antibiotics or antiseptics
- 30. A method as claimed in claim 29 wherein one or more bacteriophages are employed as defined in any one of claims 10 to 12.
- 31. A non-therapeutic method of removing, reducing or preventing bacterial contamination comprising or consisting of *P. aeruginosa*, said method comprising applying to the site or prospective site of said contamination one or more bacteriophages as defined in any one of claims 10 to 12.
 - 32. A method of detecting the presence of *P. aeruginosa* in an *in vitro* sample, which comprises contacting said sample with one or more bacteriophages as defined in any one of claims 10 to 12 and determining whether said bacteriophage(s) are capable of killing bacteria in said sample.
 - 33. A method of identifying a bacterial strain selective for one of the bacteriophages NCIMB 41174, NCIMB 41175, NCIMB 41176, NCIMB 41177,

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NCIMB 41178, NCIMB 41179, NCIMB 41180 and NCIMB 41181, the method comprising the steps of measuring plaque formation by said bacteriophage in a number of bacterial strains and selecting a strain which allows at least 1000 times more plaque formation by said bacteriophage than by any of said other bacteriophages.

33. A bacterial strain identified by a method of claim 32.

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34. Use of one or more bacterial strains according to claim 33 to identify and/or quantify bacteriophages present in preparations intended for therapeutic use and/or to identify strains present in tissue samples obtained during such therapeutic use or following such use.